

SUBJECT INDEX

Aluminium

Alkoxytrialkyl aluminates as reagent in asymmetric synthesis; formation of 2-hydroxy-2-methylbutanoic acids enriched in *S*- or *R*-enantiomers (D. Vegh, G. Boireau, E. Henry-Basch), 127

Antimony

Dicyclopentadienylzirconium bis(diphenylarsenide) and bis(diphenylantimonide), $[(\eta\text{-C}_5\text{H}_5)_2\text{Zr}(\text{EPh}_2)_2]$ (E = As, Sb), synthesis and chemical properties of (S.R. Wade, M.G.H. Wallbridge, G.R. Willey), 271

Arsenic

Dicyclopentadienylzirconium bis(diphenylarsenide) and bis(diphenylantimonide), $[(\eta\text{-C}_5\text{H}_5)_2\text{Zr}(\text{EPh}_2)_2]$ (E = As, Sb), synthesis and chemical properties of (S.R. Wade, M.G.H. Wallbridge, G.R. Willey), 271

Boron

9,12-*o*- and 9,10-*m*-Carboranyl-dithiols and -diselenols, synthesis from S_2Cl_2 or Se_2Cl_2 and *o*- and *m*-carboranes of (L.I. Zakharkin, I.V. Pisareva), 73

σ -(*o*-Carboran-9-yl)- and σ -(*m*-carboran-9-yl)- π -cyclopentadienyldicarbonylirons, syntheses of and rearrangement in reactions with bromine to π -(*o*-carboran-9-yl)cyclopentadienyl- and π -(*m*-carboran-9-yl)cyclopentadienyl-dicarbonyliron bromides (L.I. Zakharkin, A.I. Kovredov, V.A. Olshevskaya, V.A. Antonovich), 81

Tris(tetracarbonylcobalt)chlorotin, interactions with tris(pyrazolyl)borate anion; formation of the anion $[\text{Sn}_2\text{Co}_3\text{Cl}_2(\text{CO})_{10}]^-$ as the bis(tris(1-pyrazolyl)borate)cobalt(III) salt, $\text{Co}[\text{HB}(\text{pz})_3]_2^+$, and X-ray crystal structure of (O.J. Curnow, B.K. Nicholson), 257

Chromium

Alkynylphosphine-substituted products of chromium and tungsten hexacarbonyls (A. Hengefeld, R. Nast), 151

η^6 -Arenetricarbonylchromium(0) complex, evidence for reversible attack of a carbanion on (B. Ohlsson, C. Ullenius), C34

Palladium-catalysed cross-coupling reactions of mesitylcopper with aryl iodides (N.A. Bumagin, I.O. Kalinovskii, I.P. Beletskaya), C1

Pentacarbonyl{diorganylamino[methoxy(phenyl)methyleneamino]carbene}-chromium complexes, Lewis-acid-induced fragmentation of (R. Märkl, H. Fischer), 277

Tricarbonylchromium in activation reactions of aromatic rings (J.-F. Halet, J.-Y. Saillard, B. Caro, J.-Y. Le Bihan, S. Top, G. Jaouen), C37

Cobalt

Phosphine stability under hydroformylation conditions (T. Sakakura, T.-A. Kobayashi, T. Hayashi, Y. Kawabata, M. Tanaka, I. Ogata), 171

Tris(tetracarbonylcobalt)chlorotin, interactions with tris(pyrazolyl)borate anion; formation of the anion $[\text{Sn}_2\text{Co}_3\text{Cl}_2(\text{CO})_{10}]^-$ as the bis(tris(1-pyrazolyl)borate)cobalt(III) salt, $\text{Co}[\text{HB}(\text{pz})_3]_2^+$, and X-ray crystal structure of (O.J. Curnow, B.K. Nicholson), 257

Gallium

Diphenylalkylthio- and diphenylarylthiogallanes, preparation and properties of; crystal structure of diphenylethylthiogallane (G.G. Hoffmann, C. Burschka), 229

Germanium

1,2-Disila- and 1,2-digerma-4-cyclohexenes, formation of $\text{R}_2\text{M}=\text{MR}_2$ compounds

from (A. Marchand, P. Gerval, F. Duboudin, M. Joanny, P. Mazerolles), 93

Hexaphenyldigermane, selective cleavage reactions of (D. Simon, K. Häberle, M. Dräger), 133

Manganese insertion into Group IVB—carbon bonds, preparation of complexes from and mechanism of the deinsertion reaction (E. Colomer, R.J.P. Corriu, A. Vioux), 107

Gold

[Au₂Pt₂(PPh₃)₄(CN-xylyl)₄](PF₆)₂, platinum-gold cluster with a flattened butterfly geometry, synthesis and structural characterisation of (C.E. Briant, D.I. Gilmour, D.M.P. Mingos), C52

[Pt₃Au(μ₂-CO)₃(PCy₃)₄]PF₆, tetrahedral platinum-gold cluster, synthesis and structural characterisation of (C.E. Briant, R.W.M. Wardle, D.M.P. Mingos), C49

Iridium

Bis(triphenylphosphinetricarbonyliridium), reactions with substituted acetylenes of; synthesis, crystal and molecular structure of diphenylacetylene/bis(triphenylphosphinetricarbonyliridium)benzene (1/1) (M. Angoletta, P.L. Bellon, F. Demartin), 199

Tetrairidium carbonyl clusters of mono- and di-olefins (R. Ros, F. Canziani, R. Roulet), C9

Iron

σ-(*o*-Carboran-9-yl)- and σ-(*m*-carboran-9-yl)-π-cyclopentadienyldicarbonylirons, syntheses of and rearrangement in reactions with bromine to π-(*o*-carboran-9-yl)cyclopentadienyl- and π-(*m*-carboran-9-yl)cyclopentadienyl-dicarbonyliron bromides (L.I. Zakharkin, A.I. Kovredov, V.A. Olshevskaya, V.A. Antonovich), 81

η⁵-C₅H₅COOH(CO)₂Fe-η¹-R (R = Ph, C₅H₄-Mn(CO)₃, CH₂Ph) carboxylic acids, preparation of (T. Yu. Orlova, V.N. Setkina, D.N. Kursanov), 309

η⁶-Xanthene- and -thioxanthene-η⁵-cyclopentadienyliiron cations, keto complexes from and reactions of the fluorenone and xanthone complexes (C.C. Lee, U.S. Gill, R.G. Sutherland), 157

Manganese

η⁵-C₅H₅COOH(CO)₂Fe-η¹-R (R = Ph, C₅H₄-Mn(CO)₃, CH₂Ph) carboxylic acids, preparation of (T. Yu. Orlova, V.N. Setkina, D.N. Kursanov), 309

(η⁵-C₅H₅)MnOs₃(μ₂-CH=CHPh)(μ-H)-(μ-CO)(CO)₁₁, unusual metallic cluster, synthesis and crystal and molecular structures of (A.B. Antonova, S.V. Kovalenko, E.D. Korniyets, A.A. Johansson, Yu.T. Struchkov, A.I. Yanovsky), 299

Cyclopentadienyltricarboxylmanganese derivatives, ion—molecule reactions with 18-crown-6 in the gas-phase of (D.V. Zagorevskii, Yu.S. Nekrasov), 121

Manganese insertion into Group IVB—carbon bonds, preparation of complexes from and mechanism of the deinsertion reaction (E. Colomer, R.J.P. Corriu, A. Vioux), 107

Metalloenes

Arenecyclopentadienylruthenium cations, reactivity of (N.A. Vol'kenau, I.N. Bolesova, L.S. Shul'pina, A.N. Kitaigorodskii), 313

Cyclopentadienyltricarboxylmanganese derivatives, ion—molecule reactions with 18-crown-6 in the gas-phase of (D.V. Zagorevskii, Yu.S. Nekrasov), 121

Niobocene sulphide dimer, synthesis and molecular structure of (Yu.V. Skripkin, I.L. Eremenko, A.A. Pasynskii, Yu.T. Struchkov, V.E. Shklover), 285

Molybdenum

Peroxonickel-dibromomolybdenum bimetallic system, olefin epoxidation followed by epoxide transformation into, 1,2-dibromoalkane by (H. Arzoumanian, R. Lai, J. Metzger, J.-F. Petrignani), 207

Nickel

- Cyclopentadienylnickel complexes with bulky phosphanes, synthesis and reactivity of (N. Kuhn, N. Heuser, M. Winter), 221
- Peroxonickel-dibromomolybdenum bimetallic system, olefin epoxidation followed by epoxide transformation into 1,2-dibromoalkane by (H. Arzoumanian, R. Lai, J. Metzger, J.-F. Petrigiani), 207
- Tris(triphenylphosphine)bromonickel, oxidative addition reactions with aryl halides of (M. Anton, N. Clos, G. Muller), 213

Niobium

- Niobocene sulphide dimer, synthesis and molecular structure of (Yu. V. Skripkin, I. L. Eremenko, A. A. Pasynskii, Yu. T. Struchkov, V. E. Shklover), 285
- Tetraethylammonium tricarbonyl- η^5 -cyclopentadienyltriphenylstannyl-niobate(I), $[(C_2H_5)_4][Nb(\eta^5-C_5H_5)\{Sn(C_6H_5)_3\}(CO)_3]$ crystal and molecular structure of (F. Nümann, J. Kopf, D. Rehder), 249

Osmium

- $(\eta^5-C_5H_5)_2MnOs_3(\mu_2-CH=CHPh)(\mu-H)(\mu-CO)(CO)_{11}$, unusual metallic cluster, synthesis and crystal and molecular structures of (A. B. Antonova, S. V. Kovalenko, E. D. Korniyets, A. A. Johansson, Yu. T. Struchkov, A. I. Yanovsky), 299
- Unsaturated mixed-metal cluster anion, electrochemical reduction of; synthesis and X-ray crystal structure of $[(Ph_3P)_2-N][\{Os_3H(CO)_{10}\}_3Ag]$ (M. Fajardo, M. P. Gómez-Sal, H. D. Holden, B. F. G. Johnson, J. Lewis, R. C. S. McQueen, P. R. Raithby), C25

Palladium

- Palladium-catalysed cross-coupling reactions of mesitylcopper with aryl iodides (N. A. Bumagin, I. O. Kalinovskii, I. P. Beletskaya), C1

Phosphorus

- Alkynylphosphine-substituted products of chromium and tungsten hexacarbonyls (A. Hengefeld, R. Nast), 151
- $[Au_2Pt_2(PPh_3)_4(CN\text{-xylyl})_4](PF_6)_2$, platinum-gold cluster with a flattened butterfly geometry, synthesis and structural characterisation of (C. E. Briant, D. I. Gilmour, D. M. P. Mingos), C52
- Bis(triphenylphosphinetriacetyliridium), reactions with substituted acetylenes of; synthesis, crystal and molecular structure of diphenylacetylene/bis(triphenylphosphinedicarbonyliridium)benzene (1/1) (M. Angoletta, P. L. Bellon, F. Demartin), 199
- Cyclopentadienylnickel complexes with bulky phosphanes, synthesis and reactivity of (N. Kuhn, N. Heuser, M. Winter), 221
- Diplatinum complex containing one bridging and two chelating dppm ligands; X-ray structure analysis of $[Pt_2(dppm)_3][PF_6]_2$ (dppm = $Ph_2PCH_2PPh_2$) (S. I. Al-Resayes, P. B. Hitchcock, J. F. Nixon), C13
- Mono- and di-nuclear rhodium complexes of *meso*- and *dl*-1,1,4,7,10,10-hexaphenyl-1,4,7,10-tetraphosphadecane, stereochemical control of reactivity and complexation geometry of (J. M. Brown, L. R. Canning), 179
- Palladium-catalysed cross-coupling reactions of mesitylcopper with aryl iodides (N. A. Bumagin, I. O. Kalinovskii, I. P. Beletskaya), C1
- Peroxonickel-dibromomolybdenum bimetallic system, olefin epoxidation followed by epoxide transformation into 1,2-dibromoalkane by (H. Arzoumanian, R. Lai, J. Metzger, J.-F. Petrigiani), 207
- $[Pt_3Au(\mu_2-CO)_3(PCy_3)_4][PF_6]$, tetrahedral platinum-gold cluster, synthesis and structural characterisation of (C. E. Briant, R. E. M. Wardle, D. M. P. Mingos), C49
- $[Ru_4(CO)_3\{P(OMe)_3\}(\mu_3-C_5H_4)_2(\eta-C_5H_5)_2]$, X-ray structure of (N. D. Feasey, N. J. Forrow, G. Hogarth, S. A. R. Knox, K. A. MacPherson, M. J. Morris, A. G. Orpen), C41
- Tris(triphenylphosphine)bromonickel, oxidative addition reactions with aryl halides of (M. Anton, N. Clos, G. Muller), 213

Tris(triphenylphosphine)dichlororuthenium, tetrahaloalkane addition to alkenes in the presence of (W.J. Bland, R. Davis, J.L.A. Durrant), C45

Unsaturated mixed-metal cluster anion, electrochemical reduction of; synthesis and X-ray crystal structure of $[(\text{Ph}_3\text{P})_2\text{N}][\{\text{Os}_3\text{H}(\text{CO})_{10}\}_2\text{Ag}]$ (M. Fajardo, M.P. Gómez-Sal, H.D. Holden, B.F.G. Johnson, J. Lewis, R.C.S. McQueen, P.R. Raithby), C25

η^6 -Xanthene- and -thioxanthene- η^5 -cyclopentadienyliron cations, keto complexes from and reactions of the fluorone and xanthone complexes (C.C. Lee, U.S. Gill, R.G. Sutherland), 157

Platinum

$[\text{Au}_2\text{Pt}_2(\text{PPh}_3)_4(\text{CN-xyllyl})_4](\text{PF}_6)_2$, platinum-gold cluster with a flattened butterfly geometry, synthesis and structural characterisation of (C.E. Briant, D.I. Gilmour, D.M.P. Mingos), C52

Diplatinum complex containing one bridging and two chelating dppm ligands; X-ray structure analysis of $[\text{Pt}_2(\text{dppm})_3][\text{PF}_6]_2$ (dppm = $\text{Ph}_2\text{PCH}_2\text{PPh}_2$) (S.I. Al-Resayes, P.B. Hitchcock, J.F. Nixon), C13

$[\text{Pt}_3\text{Au}(\mu_2\text{-CO})_3(\text{PCy}_3)_4]\text{PF}_6$, tetrahedral platinum-gold cluster, synthesis and structural characterisation of (C.E. Briant, R.W.M. Wardle, D.M.P. Mingos), C49

Rhodium

Mono- and di-nuclear rhodium complexes of *meso*- and *dl*-1,1,4,7,10,10-hexaphenyl-1,4,7,10-tetraphosphadecane, stereochemical control of reactivity and complexation geometry of (J.M. Brown, L.R. Canning), 179

Phosphine stability under hydroformylation conditions (T. Sakakura, T.-A. Kobayashi, T. Hayashi, Y. Kawabata, M. Tanaka, I. Ogata), 171

Rhodium(I) and acyclic polyethers, through-space molecular interactions with promotion of oxidative addition between (M.L. Deem), 191

Ruthenium

Arenecyclopentadienylruthenium cations, reactivity of (N.A. Vol'kenau, I.N. Bolesova, L.S. Shul'pina, A.N. Kitaigorodskii), 313

Phosphine stability under hydroformylation conditions (T. Sakakura, T.-A. Kobayashi, T. Hayashi, Y. Kawabata, M. Tanaka, I. Ogata), 171
 $[\text{Ru}_4(\text{CO})_5\{\text{P}(\text{OMe})_3\}(\mu_3\text{-C}_5\text{H}_4)_2(\eta\text{-C}_5\text{H}_5)_2]$, X-ray structure of (N.D. Feasey, N.J. Forrow, G. Hogarth, S.A.R. Knox, K.A. MacPherson, M.J. Morris, A.G. Orpen), C41

Tris(triphenylphosphine)dichlororuthenium, tetrahaloalkane addition to alkenes in the presence of (W.J. Bland, R. Davis, J.L.A. Durrant), C45

Selenium

9,12-*o* and 9,10-*m*-Carboranyl-dithiols and -diselenols, synthesis from S_2Cl_2 or Se_2Cl_2 and *o*- and *m*-carboranes of (L.I. Zakharkin, I.V. Pisareva), 73

Silicon

1,2-Disila- and 1,2-digerma-4-cyclohexenes, formation of $\text{R}_2\text{M}=\text{MR}_2$ compounds from (A. Marchand, P. Gerval, F. Duboudin, M. Joanny, P. Mazerolles), 93

Manganese insertion into Group IVB-carbon bonds, preparation of complexes from and mechanism of the deinsertion reaction (E. Colomer, R.J.P. Corriu, A. Vioux), 107

Methylpolysiloxanes, interaction with elemental fluorine of (I. Ruppert, K. Schlich, P. Hardt), C29

Organo-1,3,2-dioxasilaheterocycles (Review) (R.H. Cragg, R.D. Lane), 1

Silver

Unsaturated mixed-metal cluster anion, electrochemical reduction of; synthesis and X-ray crystal structure of $[(\text{Ph}_3\text{P})_2\text{N}][\{\text{Os}_3\text{H}(\text{CO})_{10}\}_2\text{Ag}]$ (M. Fajardo, M.P. Gómez-Sal, H.D. Holden, B.F.G. Johnson, J. Lewis, R.C.S. McQueen, P.R. Raithby), C25

Sulphur

- 9,12-*o* and 9,10-*m*-Carboranyl-dithiols and -diselenols, synthesis from S_2Cl_2 or Se_2Cl_2 and *o*- and *m*-carboranes of (L.I. Zakharkin, I.V. Pisareva), 73
- Cyclopentadienylnickel complexes with bulky phosphanes, synthesis and reactivity of (N. Kuhn, N. Heuser, M. Winter), 221
- Diphenylalkylthio- and diphenylarylthio-gallanes, preparation and properties of; crystal structure of diphenylethylthio-gallane (G.G. Hoffmann, C. Burschka), 229
- Niobocene sulphide dimer, synthesis and molecular structure of (Yu.V. Skripkin, I.L. Eremenko, A.A. Pasynskii, Yu.T. Struchkov, V.E. Shklover), 285

Tin

- Bis(trialkyltin) carbonates, evidence for two non-equivalent tin sites in the structure of (S.J. Blunden, R. Hill, J.N.R. Ruddick), C5
- Tetraethylammonium tricarbonyl- η^5 -cyclopentadienyltriphenylstannyl-niobate(I), $[(C_2H_5)_4N][Nb(\eta^5-C_5H_5)\{Sn(C_6H_5)_3\}(CO)_3]$, crystal and molecular structure of (F. Näumann, J. Kopf, D. Rehder), 249
- Triphenyltin acetate, structure of (K.C. Molloy, T.G. Purcell, K. Quill, I.W. Nowell), 237
- Triphenylvinyltin, synthesis and crystal structure of (F. Theobald, B. Trimaille), 143
- Tris(tetracarbonylcobalt)chlorotin, interactions with tris(pyrazolyl)borate anion; formation of the anion $[Sn_3Co_3Cl_2(CO)_9]^-$ as the bis(tris(1-pyrazolyl)borate)cobalt(III) salt $Co[HB(pz)_3]_2^+$, and X-ray crystal structure of (O.J. Curnow, B.K. Nicholson), 257

Titanium

- Cyclopentadienylmethylchlorotitanium(IV) thermally stable compound, synthesis and properties of (G.J. Erskine, G.J.B. Hurst, E.L. Weinberg, B.K. Hunter, J.D. McCowan), 265

Tungsten

- Alkynylphosphine-substituted products of chromium and tungsten hexacarbonyls (A. Hengefeld, R. Nast), 151
- Pentacarbonyl {diorganylamino[methoxy(phenyl)methyleneamino]carbene}-chromium complexes, Lewis-acid-induced fragmentation of (R. Märkl, H. Fischer), 277

Vanadium

- Tetracyanodinitrosylvanadium(0) dianion, 2,2'-bipyridine- and 1,10-phenanthroline-dicyanodinitrosylvanadium(0), synthesis from VO_4^{3-} in aqueous-aerobic media of (R. Bhattacharyya, P.S. Roy, A.K. Dasmahapatra), 293

Zinc

- Cyclopentadienylmethylchlorotitanium(IV) thermally stable compound, synthesis and properties of (G.J. Erskine, G.J.B. Hurst, E.L. Weinberg, B.K. Hunter, J.D. McCowan), 265

Zirconium

- Dicyclopentadienylzirconium bis(diphenylarsenide) and bis(diphenylantimonide), $[(\eta-C_5H_5)_2Zr(EPh_2)_2]$ (E = As, Sb), synthesis and chemical properties of (S.R. Wade, M.G.H. Wallbridge, G.R. Willey), 271

Book reviews

- Gmelin handbook of inorganic chemistry. 8th edition. Cu — Organocopper compounds. Part 2 (C. Eaborn), C22
- Gmelin handbook of inorganic chemistry. 8th edition. Fe — Organoiron compounds. Part B11: Mononuclear compounds 11 (M.F. Lappert), C21
- Gmelin handbook of inorganic chemistry. 8th edition. Mn — Manganese. Part C10: Electronic spectra of manganese halides. Cumulative substance index of C1—C10 (M.F. Lappert), C23

Gmelin handbook of inorganic chemistry. 8th edition. Sc, Y, La—Lu, Rare earth elements, Part C7. Sulfides, Oxide sulfides, alkali thiometalates (M.F. Lappert), C20

Gmelin handbook of inorganic chemistry. 8th edition. Sc, Y, La—Lu, Rare earth elements. Part D6. Ion exchange and solvent extraction reactions. Organometallic compounds (M.F. Lappert), C22

Gmelin handbook of inorganic chemistry. 8th edition. Tc — Technetium, Suppl. Vol. 2. Metal. Alloys. Compounds. Chemistry in solution (M.F. Lappert), C21

Organometallic chemistry of rhodium and iridium; by R.S. Dickson (M.F. Lappert), C17

Polar covalence; by R.T. Sanderson (J.D. Smith), C19

Specialists periodical reports. Organometallic chemistry, Vol. 11; reported by E.W. Abel and F.G.A. Stone (M.F. Lappert), C18

Transition metal complexes — Structures and spectra (Structure and bonding, Vol. 55); edited by M.J. Clarke, J.B. Goodenough, J.A. Ibers, C.K. Jørgensen, J.B. Neilands, D. Reinen, R. Weiss, R.J.P. Williams), C20